

Welcome to the

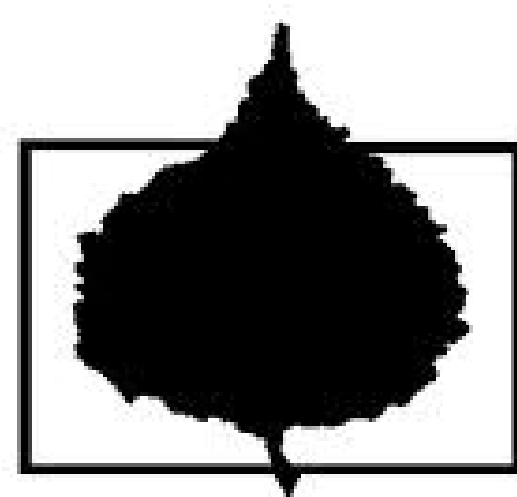
**HUNTER CREEK-SMUGGLER
MOUNTAIN
COOPERATIVE PLAN**

**OPPORTUNITIES
WORKSHOP**

WEDNESDAY, DEC. 14TH

5:30 - 7:30 PM

PITKIN COUNTY RIO GRANDE ROOM



THE CITY OF ASPEN



What is the Hunter Creek-Smuggler Mountain Cooperative Plan?

Why here, why now?

Recreation and scenic beauty bring millions of people to Aspen every year. Smuggler Mountain and the Hunter Creek Valley contain some of the most heavily used trails and scenic beauty in Aspen, as well as important wildlife habitat. However, the area has lacked cohesive management and vision, and thus, is now seeing degradation of trails, wildlife habitat, and forest health. With multiple jurisdictions managing this land, seamless management will be critical for the public's enjoyment and protection of natural resources in the future. This area also includes Aspen's wildland/urban interface (WUI), which needs interagency cooperation to plan for how the built community can coexist with the wildlands. Seamless management and planning will address the following goals:

- Enhance wildlife habitat;
- Manage for a more diverse, healthy and sustainable forest;
- Work with partners to assess and manage wildfire risk;
- Maintain a safe recreational setting and enhance recreation opportunities for residents and visitors to sustain tourism as the main economic driver for the Aspen area;
- Coordinate on recreation signage;
- Promote educational opportunities through interpretation and outreach;
- Protect water quality and greater watershed health;
- Identify, reclaim and interpret historic mines;
- Identify opportunities for economic development that may result from management activities;
- Sustainably maintain existing infrastructure;
- Develop a monitoring program to gauge the Plan's effectiveness and adapt the Plan as needed.

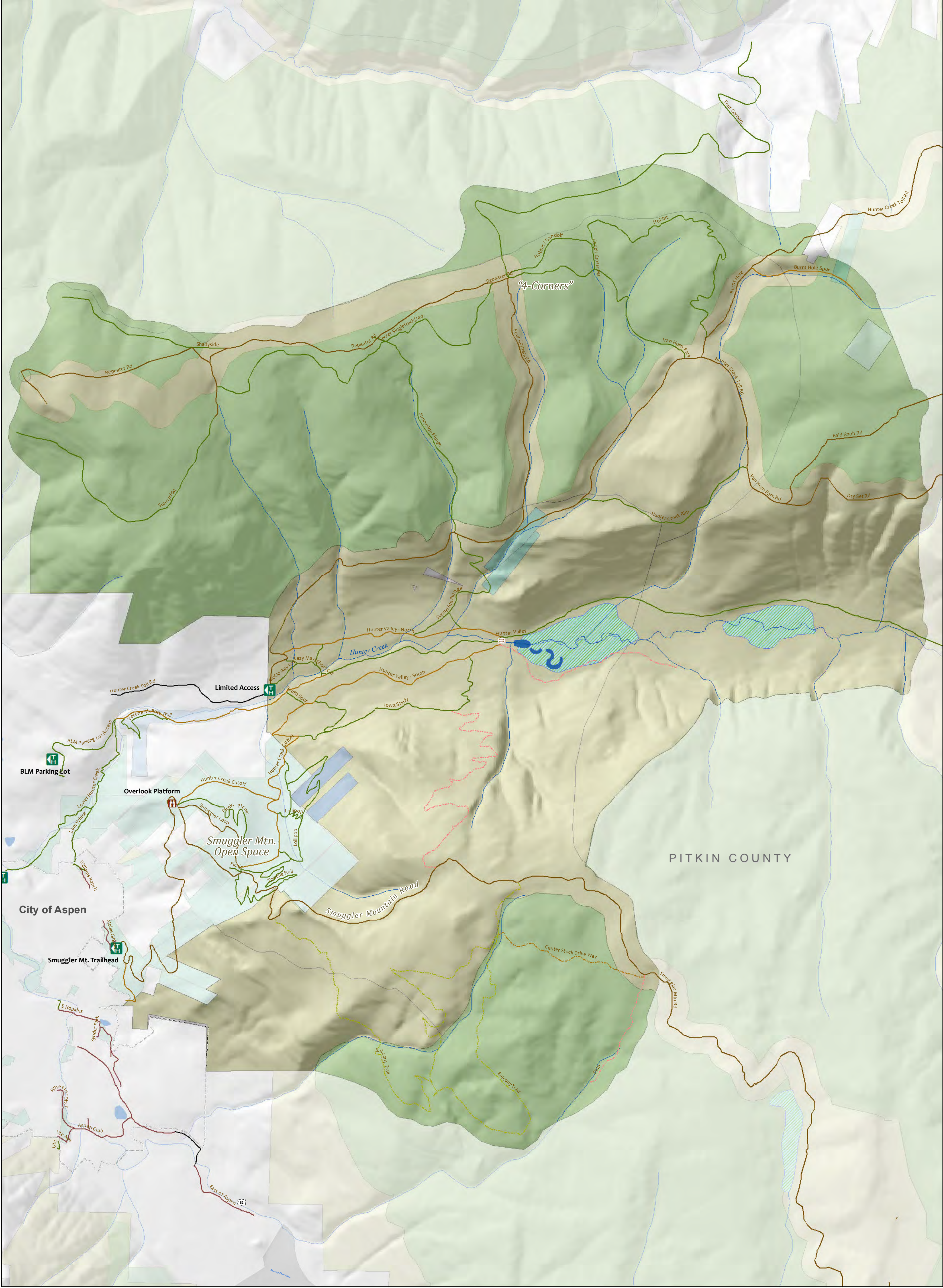
Partnerships and Process

The Plan recognizes the extensive forest and recreation management efforts of the City of Aspen and Pitkin County on Smuggler Mountain and seeks to extend those efforts from the Smuggler Mountain Open Space (SMOS) onto adjacent USFS administered lands. The seamless management planning of the adjacent federal and SMOS properties is a way to increase the sustainability and resilience of these public lands, as well as their value to the public.

The Plan is being conducted under the guidance of the USFS. The City of Aspen, Pitkin County, For the Forest, and the Roaring Fork Future Forest Roundtable is assisting the USFS by sharing ideas and suggestions regarding the project goals. Having began in June 2011, the Plan includes three phases: Community Engagement/Visioning, Master Planning, and NEPA Compliance. The process is expected to take approximately one year to complete.

Planning Area

Hunter Creek - Smuggler Mountain Cooperative Plan



Planning Area

- Urban Road
- 4WD Road
- Four or Double Track
- Single Track
- Path/Urban
- Historic
- Closed
- Non-System
- Roadless Areas
- Aspen Valley Land Trust
- Public Open Space
- White River National Forest
- Private



Process

3 Planning Phases:

1. Visioning

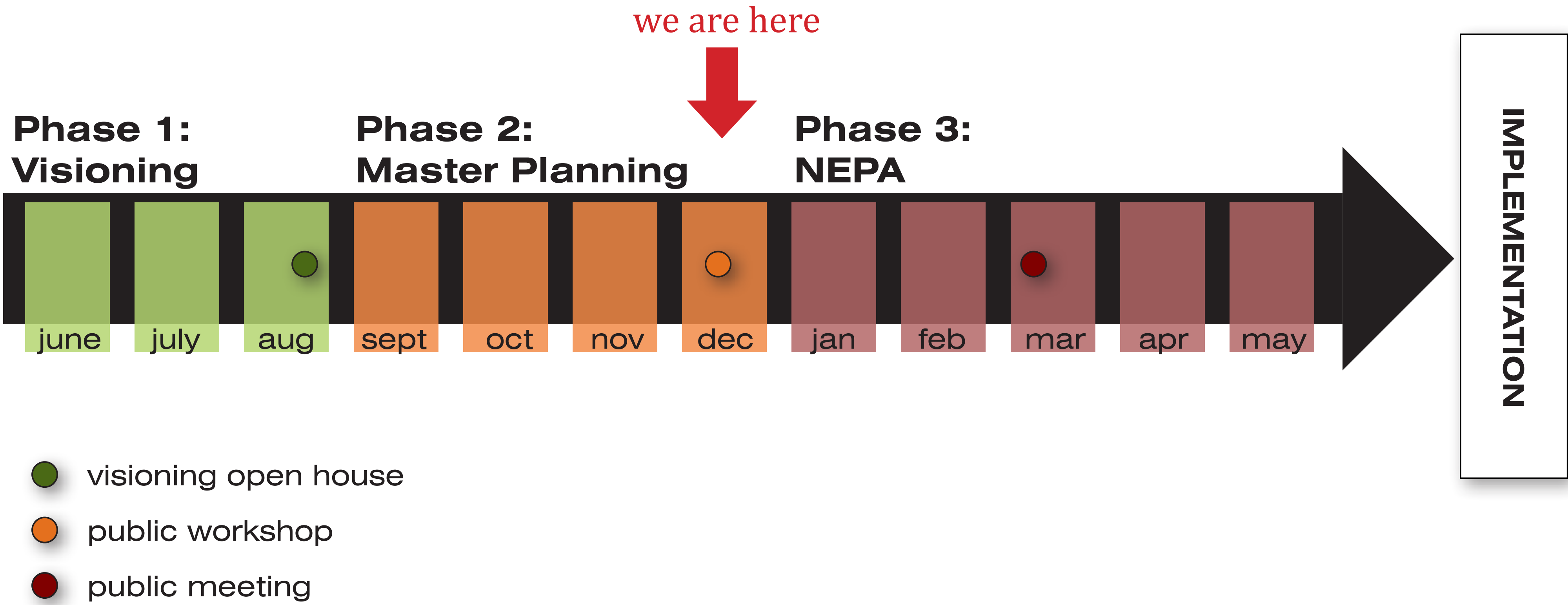
- August 30th Open House
- Extensive stakeholder input
- Vision Document

2. Master Planning

- Identification of opportunities to meet the Vision
- Resource-specific
- Zone Approach composite analysis
- Management direction and toolkits

3. NEPA

- Technical evaluation of each zone and its toolkit
- Phasing
- Additional opportunitites for public comment



ZONE MANAGEMENT

What is Zone Management?

Zone management is a planning approach that will allow an array of projects, or tools, to be considered for management within a generally-defined area. This approach does not require projects to be identified at specific locations, but instead, to be identified within portions of the planning area where they would be most beneficial and suitable.

How are Zones defined?

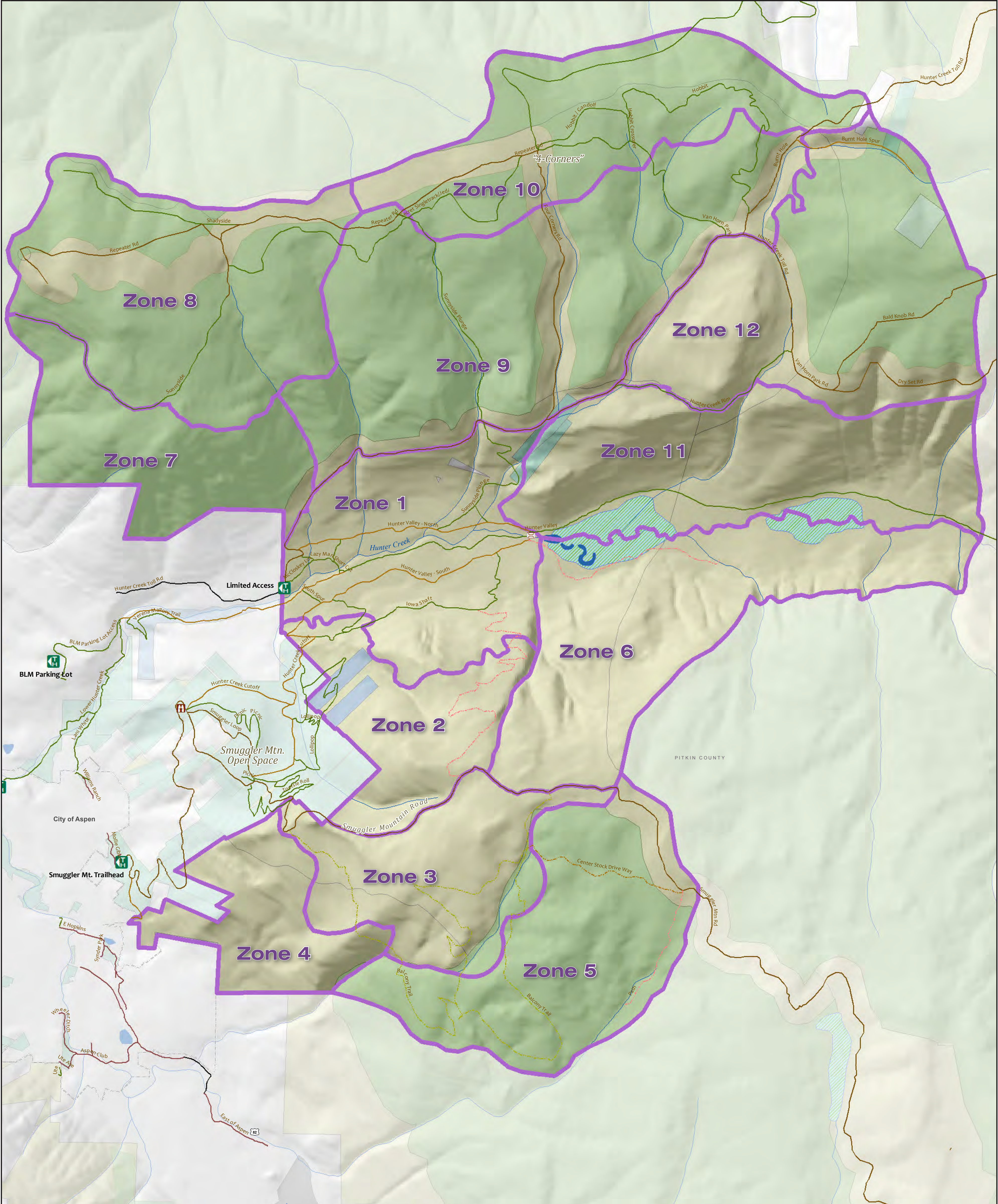
A Zone is a conceptual management unit that has a distinct character and vision, and consistent set of constraints and resources. Zone boundaries were delineated based on these characteristics, breaks in topography, and other natural boundaries.

How will Zones be implemented?

The Master Plan will set management direction and recommendations for each Zone. The tools that are included in those recommendations will then be evaluated through the NEPA process, to analyze their impacts to environmental resources. Once the NEPA process has been completed, resource managers may use the potentially approved NEPA document as a framework for implementing projects within each Zone. Project implementation would involve additional site-specific, detailed resource analysis (e.g. locations of rare plants) and design (e.g. specific trail realignment).

ZONE MANAGEMENT

Zones



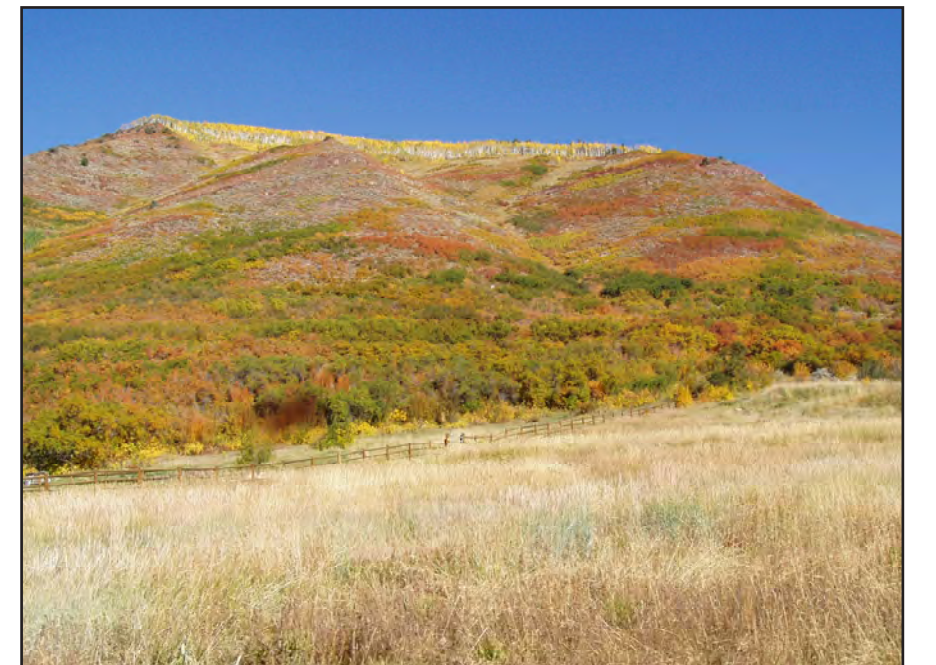
FOREST HEALTH / VEG

Overview of Opportunities

Improve the Condition of Gambel Oak Stands.

- Beyond range of variability from fire disturbance (<30 years); stands are too thick and old, resulting in poor wildlife habitat.
- Increasing diversity improves ratio of forage to cover, improves wildlife habitat, as well as fire management benefits.

Achieved Through: Patch cuts (2–10 acres) to mimic fire disturbance.



Manage for Disturbance in Lodgepole Stands.

- Lodgepole forests depend on disturbance to maintain diversity and health; the last major disturbance 100 plus years ago, producing an old, even aged stand.
- MPB outbreaks are a component of a healthy forest, though not under these conditions or at this scale; all stands at high risk currently
- There is an opportunity to increase the forest's resiliency to further MBP outbreak by increasing age class and species diversity.
- Improving age class and species diversity also has benefits to wildlife habitat.



Achieved Through: Patch cuts to increase age class diversity; and thinning, brood tree removal and verbenone to reduce densities and stress specific to MPB.

Improve the Condition and Extent of Aspen Stands.

- Without disturbance to limit the extent of conifers, they eventually out-compete Aspen, and reduce forest health values, especially species diversity and wildlife habitat.
- Encouraging growth of new young aspen stands increases age class diversity that would normally occur with the presence of disturbance.
- There is also evidence of Sudden Aspen Decline (SAD), related to stress and lack of disturbance; improving regeneration would improve overall forest health and wildlife habitat.



Achieved Through: Removal of lodgepole pine within 100 – 200 feet of aspen stands to discourage conifer encroachment; identification of SAD and cutting of mature trees and sub-soil to encourage sprouting.

FOREST HEALTH / VEG

Priority Zones

ZONES 2 & 3:

Allows for expansion of forest health treatments done on SMOS.

Toolkit:

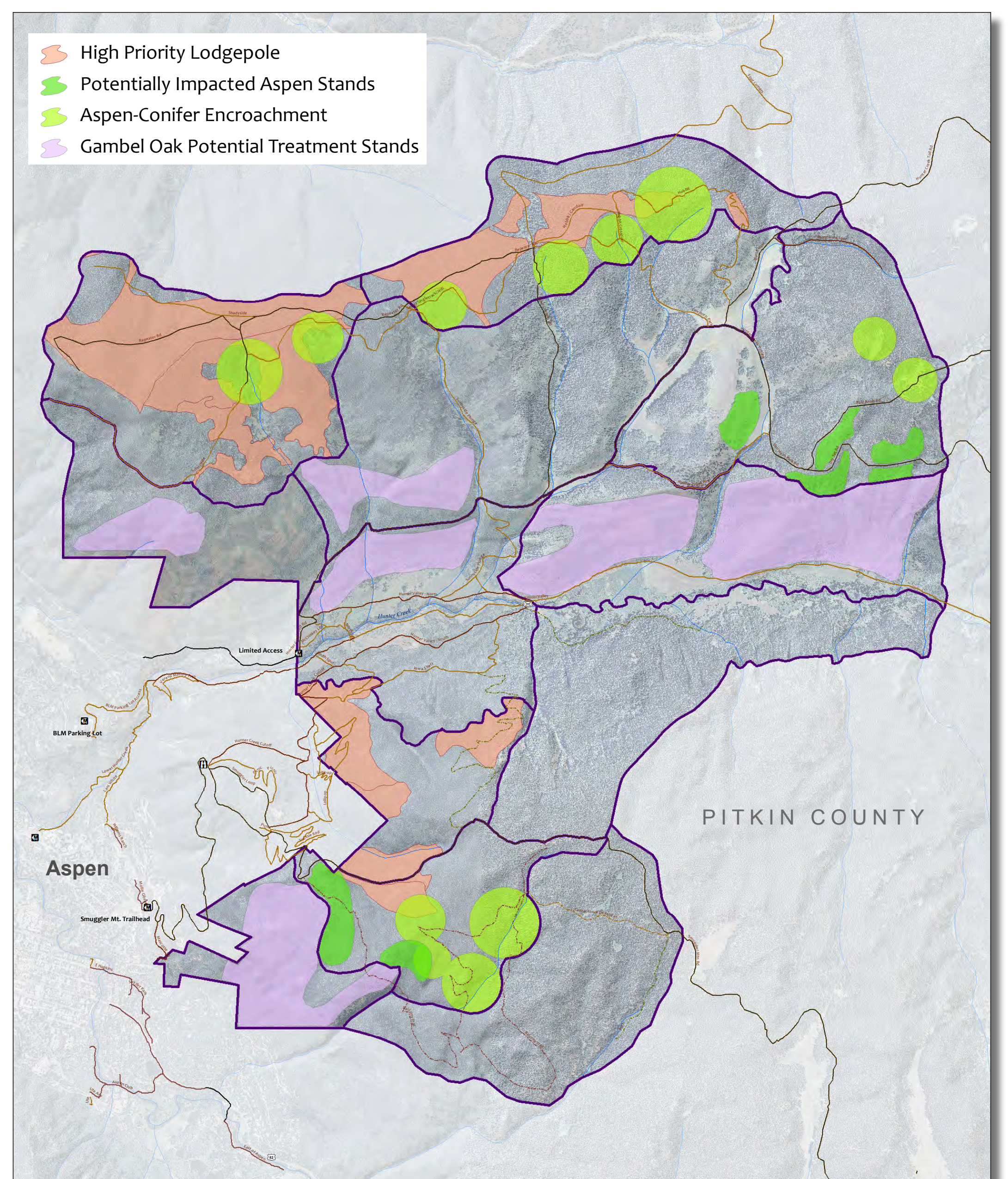
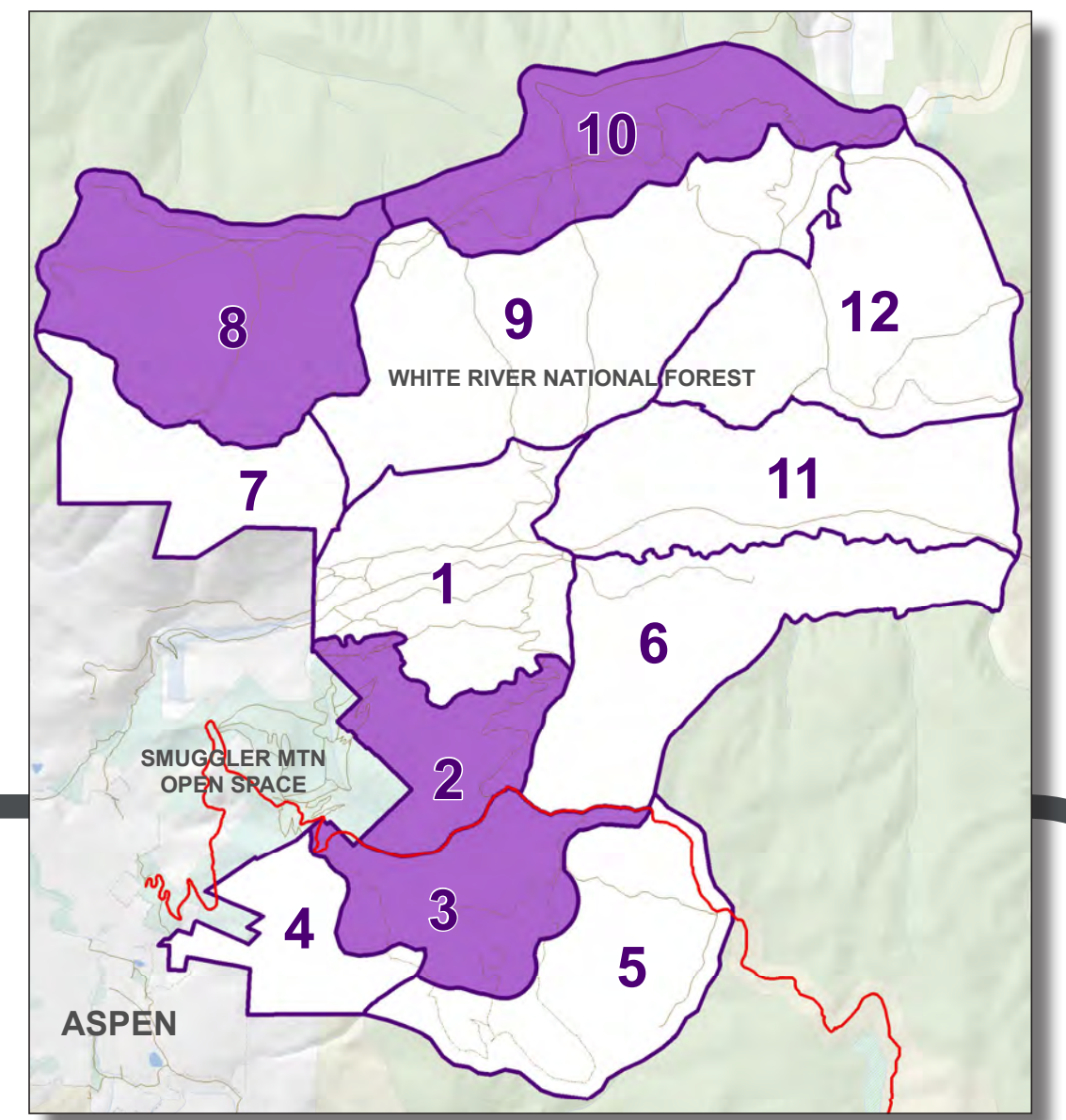
- Harvest lodgepole around aspen stands – treat 10-25 acres.
- Harvest or burn aspen stands to instigate new regeneration in potential SAD stands (5-10 acres).
- Create age class diversity by using Group Selection (GS) Silviculture in conjunction with Variable Retention (retain valuable wildlife elements), thinning and brood tree removal (BTR) with verbenone as MPB populations justify.
- Use GS on 25% of area (30-40 acres in each) and BTR with verbenone on 100% of LP stands.
- Harvest may involve the use of helicopters, and occur only in the fall.

ZONES 8 & 10:

Highly diverse area in terms of vegetation types and recreational use, relatively close to Aspen.

Toolkit:

- Apply group selection to 10% of spruce stands and 25% of lodgepole (125-175 ac. +/-).
- Apply BTR to all of stands with lodgepole and verbenone as MPB population dictates (greater than 1%) (300-600 acres).
- Remove conifers from around aspen stands to increase acres of aspen habitat (20-40 ac).
- Develop defensible space around radio towers (5-10 acres) fire in Zone 8.
- Prescribed fire may include both broadcast and pile burning.



WILDLIFE HABITAT

Overview of Opportunities

Improve the Condition of Aspen Stands.

- Beyond range of variability from fire disturbance (<20 years); stands are too thick and old, resulting in poor wildlife habitat
- Increasing diversity improves ratio of forage to cover, improves wildlife habitat, as well as fire management benefits

Achieved Through: Cut decadent, stagnant aspen & small cuts (~0.1 acre) of declining aspen stands followed by mechanical root stimulation to increase representation and quality of aspen; remove conifers inhibiting regeneration; band cuts at periphery of aspen to stimulate regeneration, expand aspen stand.

Increase Age Class and Species Diversity of Lodgepole Stands.

- Lodgepole within the PA dominated by even-aged stands with little wildlife value
- Absence of understory vegetation; little structural diversity; few species use pure lodgepole
- Lack of early seral lodgepole reduces snowshoe hare forage, which decreases winter habitat suitability for Canada lynx, a Threatened Species

Achieved Through: Patch cuts to increase age class diversity; concurrent with Forest Health.

Improve Existing and Potential Lynx Habitat.

- Mature multistory spruce-fir or mixed conifer stands with dense horizontal cover are especially important to Canada lynx. Optimal winter foraging conditions of dense (>35%) horizontal conifer cover at or above the snow.
- Regenerating, mature and late-successional spruce-fir forests with high horizontal cover may constitute some of the most important habitat for lynx.
- Provide components necessary for denning habitat

Achieved Through: Can be by patch cuts, blocks, or strips but usually no larger than 20-acre openings or 4-5 times tree height; on south slopes, openings should be smaller, about 2-3 times tree height.

Improve the Condition of Gambel Oak Stands.

- Stands are too dense and over-mature; poor forage & restrict seasonal movement of elk
- Winter range is limiting factor but much of it is over-used and provides sub-optimal forage for wintering elk
- Acorns are most important fall forage for bears – Poor acorn production increases likelihood of human-bear conflicts

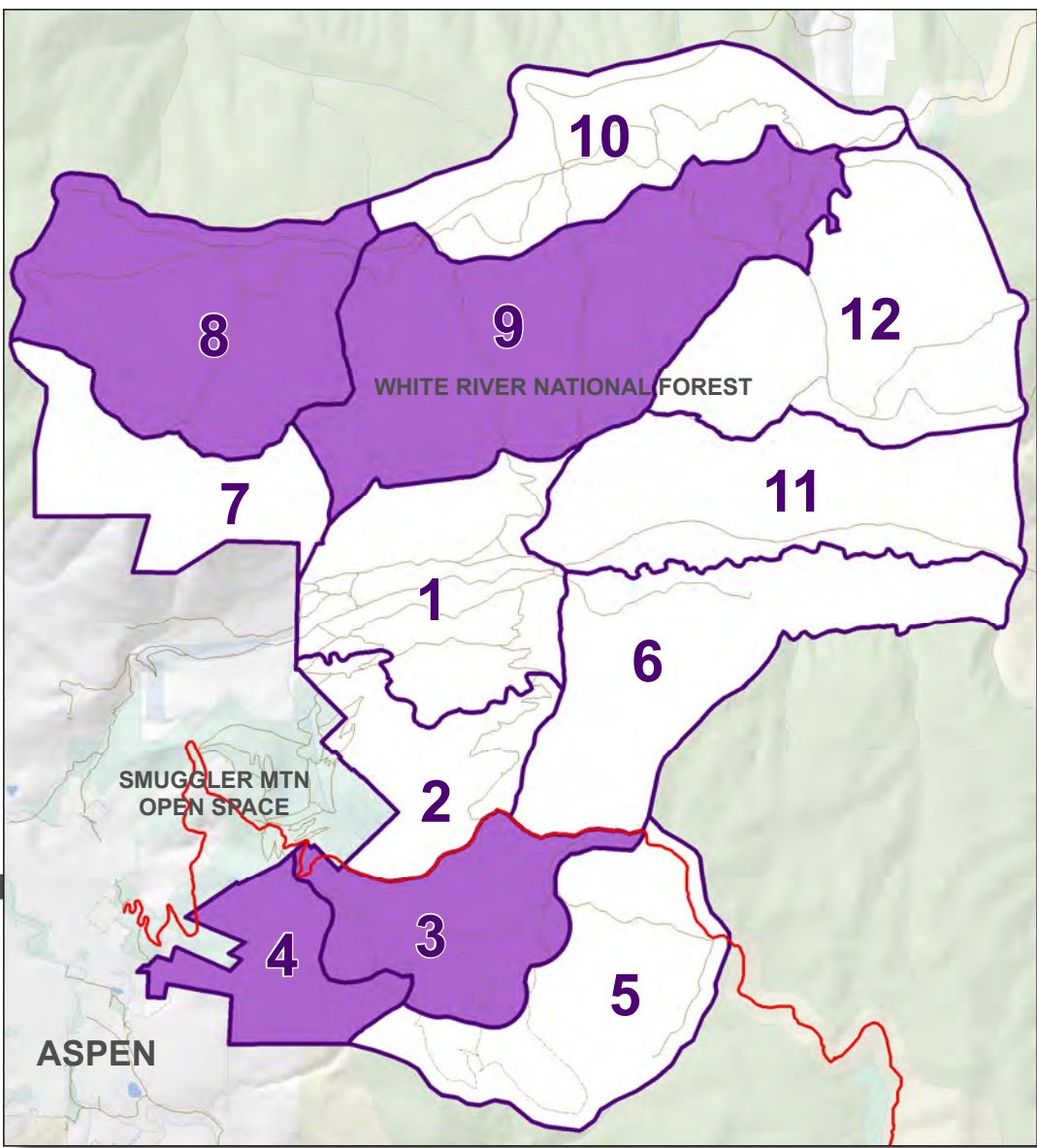
Achieved Through: Patch cuts (2-10 acres) to mimic fire disturbance.

Preserve Value of Existing Quality Habitat Areas.

Achieved Through: Leave alone; approx. 60% of planning area.

WILDLIFE HABITAT

Priority Zones



ZONE 3:

Nearly pure lodgepole provides little wildlife habitat. Aspen on west side is declining due in part to conifer encroachment. Little to no horizontal cover or understory vegetation.

Toolkit:

- Harvest lodgepole around aspen stands – treat 10-25 acres.
- Harvest or burn aspen stands to instigate new regeneration in potential SAD stands – 5-10 acres.
- Create age class diversity by using Group Selection (GS) Silviculture in conjunction with Variable Retention (retain valuable wildlife elements) on 25% of area (30-40 acres).

ZONE 4:

Over-mature and dense Gambel oak shrublands hinder movement of large animals. Decadent oak provides reduced palatability and nutrient content as well as decrease in acorn production.

Toolkit:

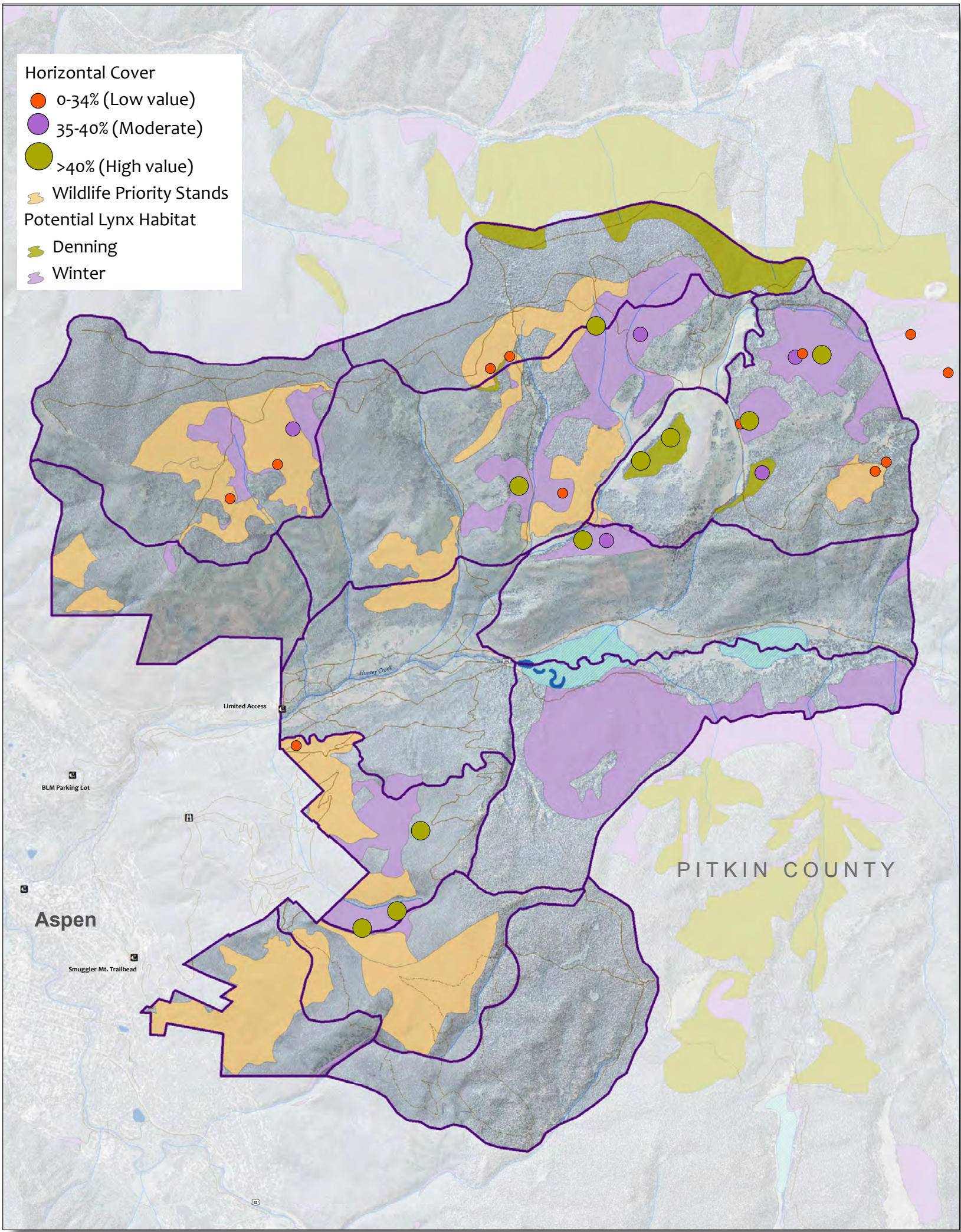
- Treat Gambel oak to instigate regeneration.
- Prescribed fire – best choice; results in most nutritious re-growth.
- Mechanically treat where slopes will allow (hydro-axe) – Treat approximately 50% of Gambel oak in several smaller units (10-15%). Treatments to occur over period of years to create diverse age classes.

ZONES 8 & 9:

Diverse habitat types including mixed conifer, spruce-fir, aspen, Gambel oak and sagebrush dominated shrublands.

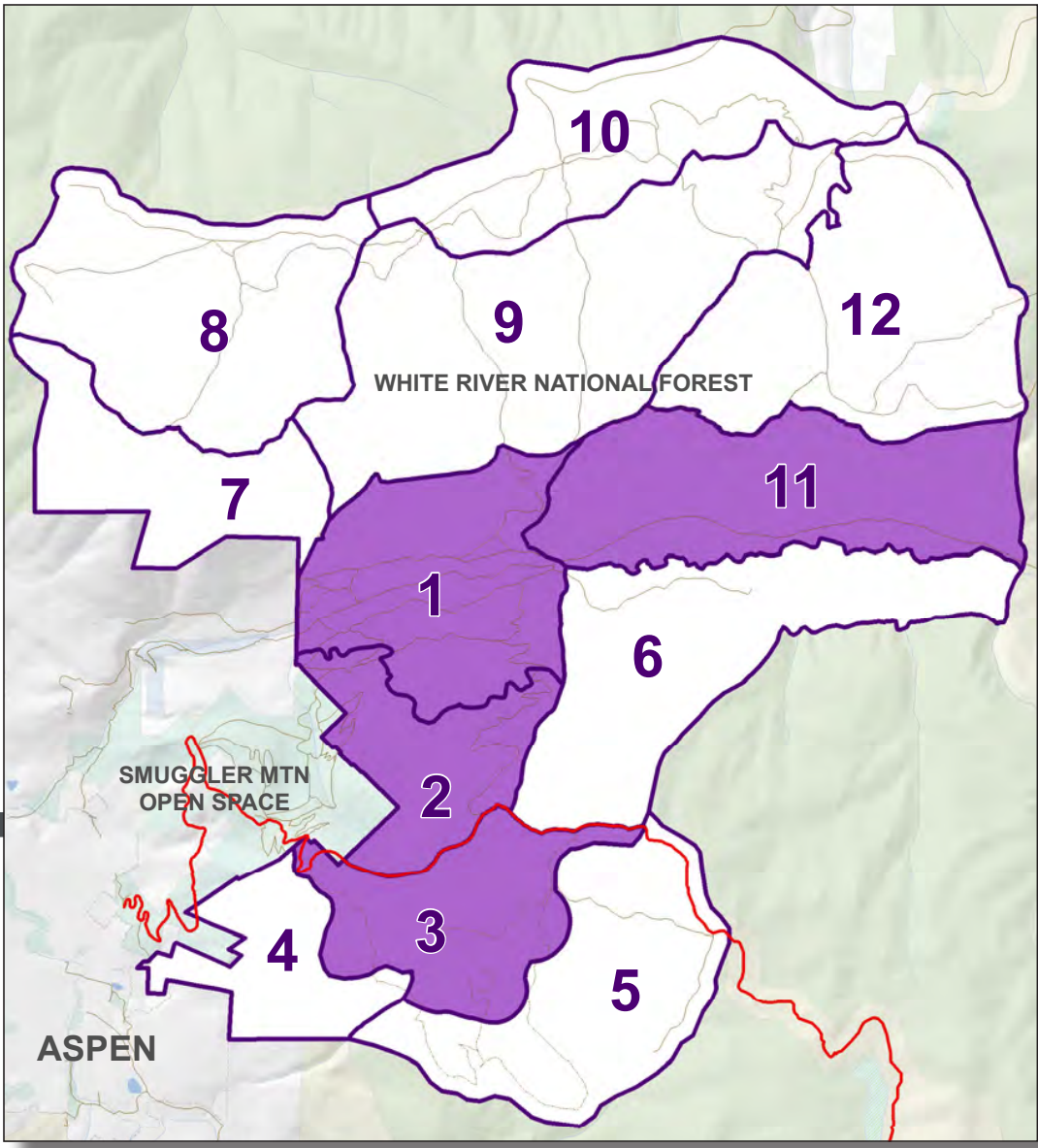
Toolkit:

- Harvest conifers around aspen stands.
- Harvest or burn aspen stands to instigate new regeneration – 5-10 acre patches.
- Create age class diversity by using GS in conjunction with Variable Retention (retain valuable wildlife elements) on 25% of area.
- Prescribed fire or mechanically treat where slopes will allow (hydro-axe) – Treat approximately 50% of Gambel oak in several smaller units (10-15%).



RECREATION

Key Opportunities



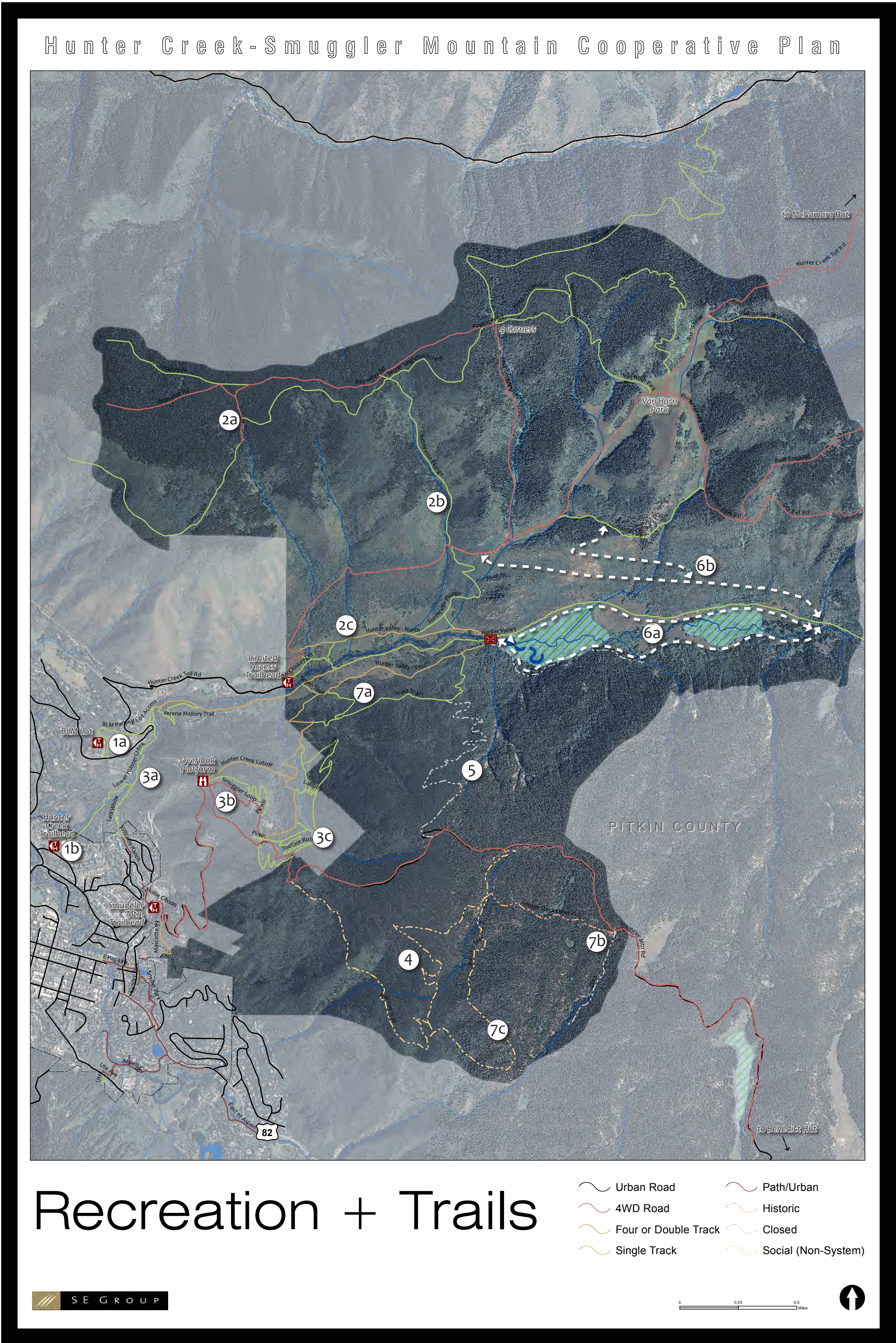
System-Wide opportunities:

- Consistent, redundant signage and wayfinding.
- More cohesive management amongst the City, County, and Forest Service in order to prioritize the maintenance and management of existing trails.
- Improved connections to trails outside of planning area (such as to Red Mountain ditch).
- Classify trails as ‘Easy’ or ‘Moderate-Difficult’.
- An extended loop within the system that offers a half-day mountain biking experience.
- Different experiences for mountain biking, hiking, Nordic, equestrian by classifying ideal routes for each within the system.
- A ‘Heritage Trail’ that brings people to mining and historic sites throughout the area.
- A close-in, short, nature hike identified on existing trails.

Trail-Specific Opportunities:

(in no order of priority)

1. Improved Access to the Hunter Creek System (a and b)
2. Improve Trail Conditions / Reroute (a, b, and c)
3. Improve Safety and Experience Along Popular Routes (a, b, and c)
4. Consideration of Balcony Trail realignment, closure, and designation (with certain agreements and management in place)
5. Historic Hiking Trail to Promote Unique Trail Experiences
6. New Nordic Trail and Novice Single Track Loop and (a and b)
7. Trail Closures (a, b, and c)

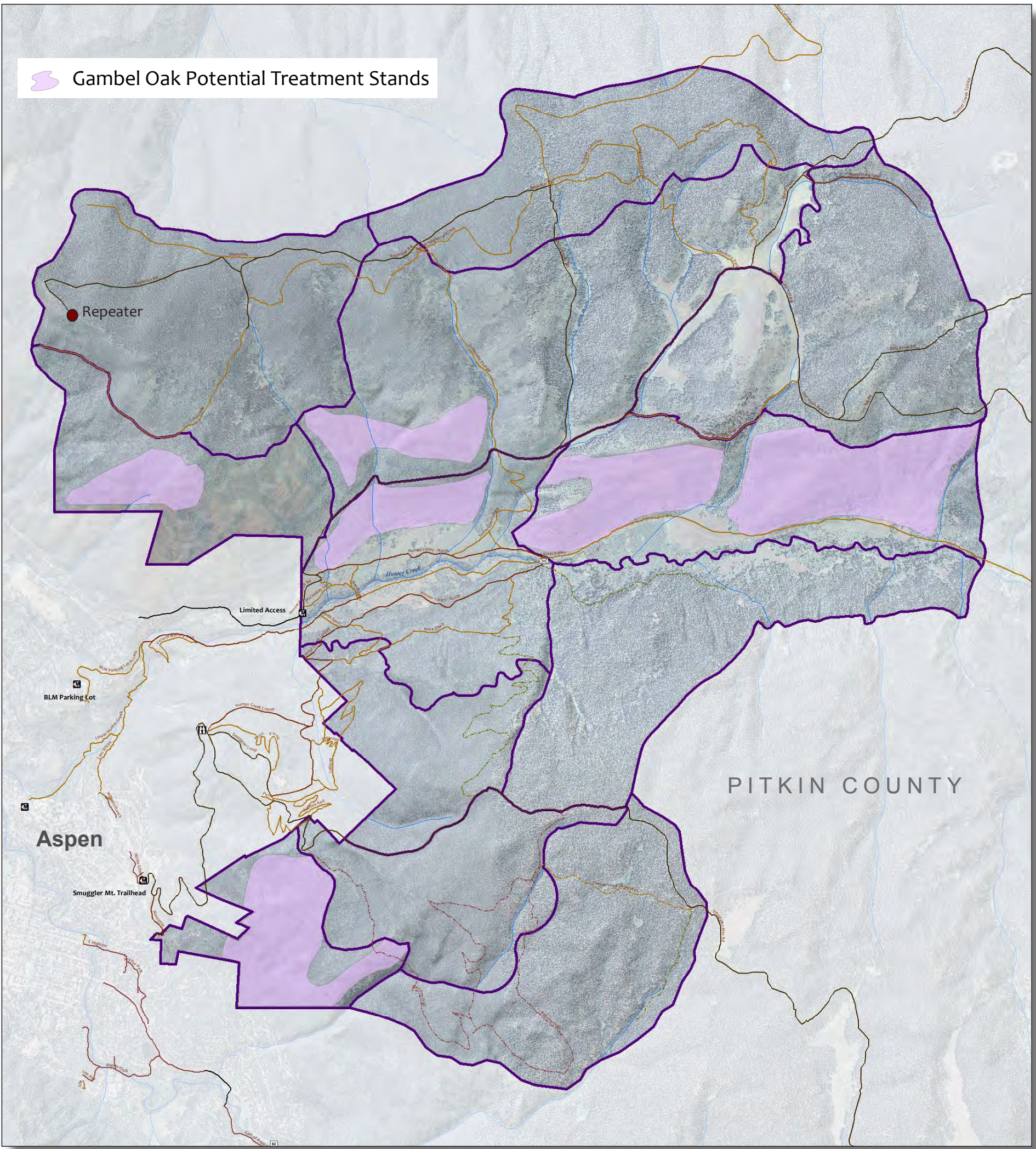
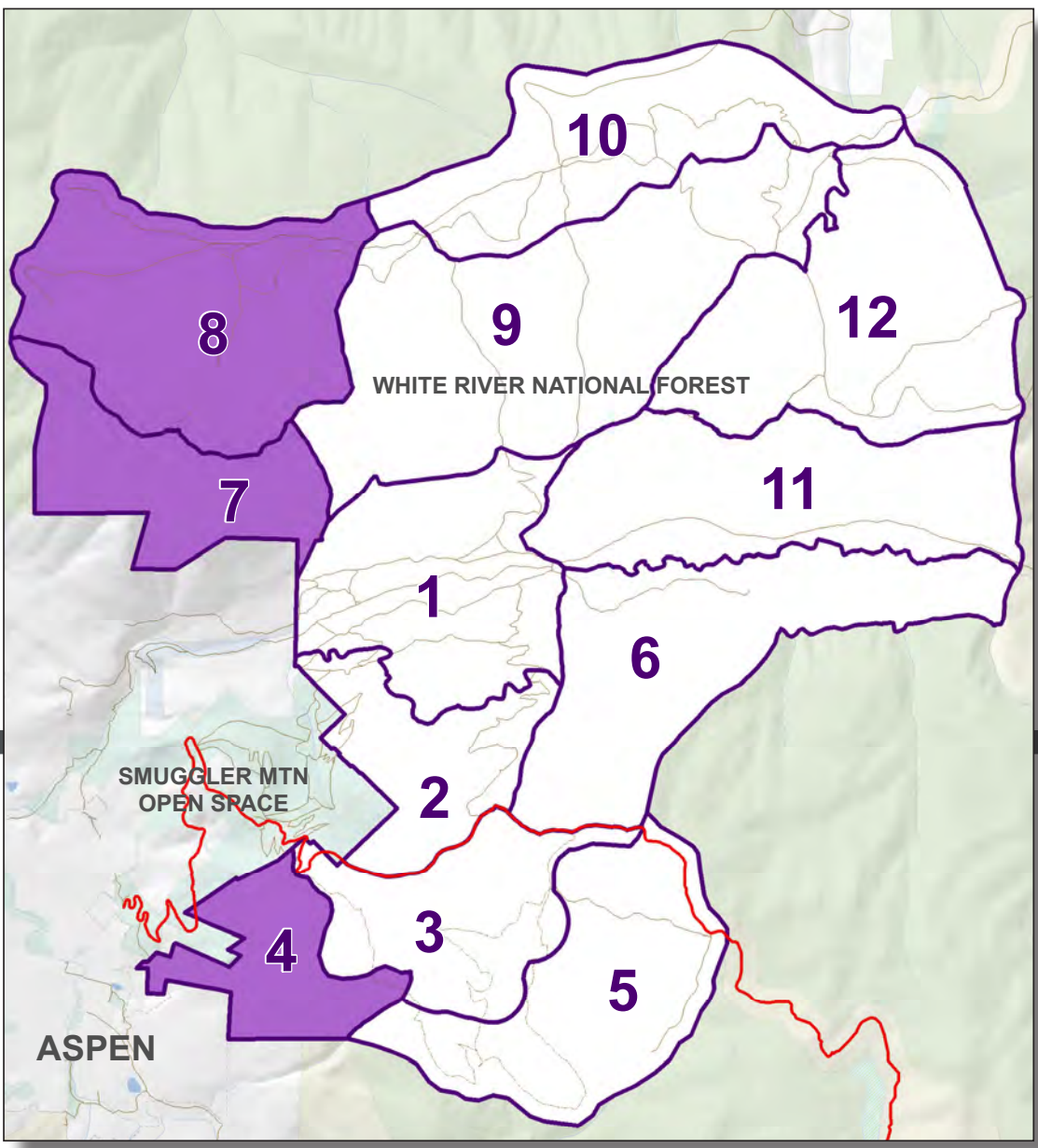


WILDFIRE MANAGEMENT

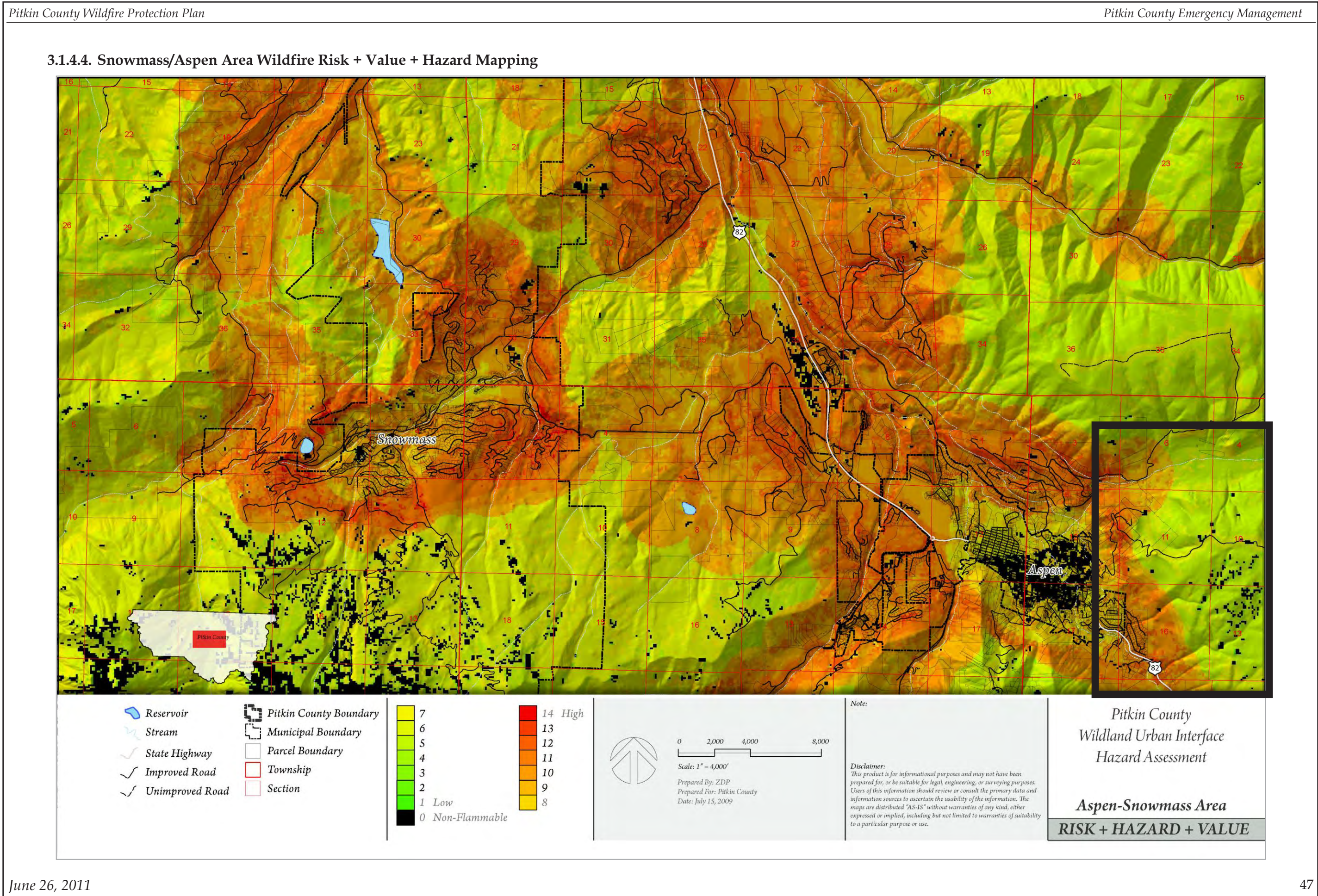
Key Opportunities

Reduce Risk of Wildfire and Restore Natural Processes to the System.

- Gambel oak – return interval < 20 years.
- Lodgepole and aspen – 100 years plus or minus.
- Spruce/fir – 200 years plus or minus.
- Fire risk is particularly high in Gambel oak, adjacent to urban areas.
- Fuel breaks adjacent to infrastructure (repeaters & urban) can create defensible space.
- Mosaics of fuel reduction areas have multiple benefits to fire and improved wildlife habitat.
- Strategic placement of wildlife treatments and fuel breaks can provide important opportunities to control fire and provide safety zones for fire fighters.



Achieved Through: Strategically placed fuel treatments (mosaics) to mimic fire disturbance; focused prescribed fire; mechanical treatments (mastication).



EDUCATION

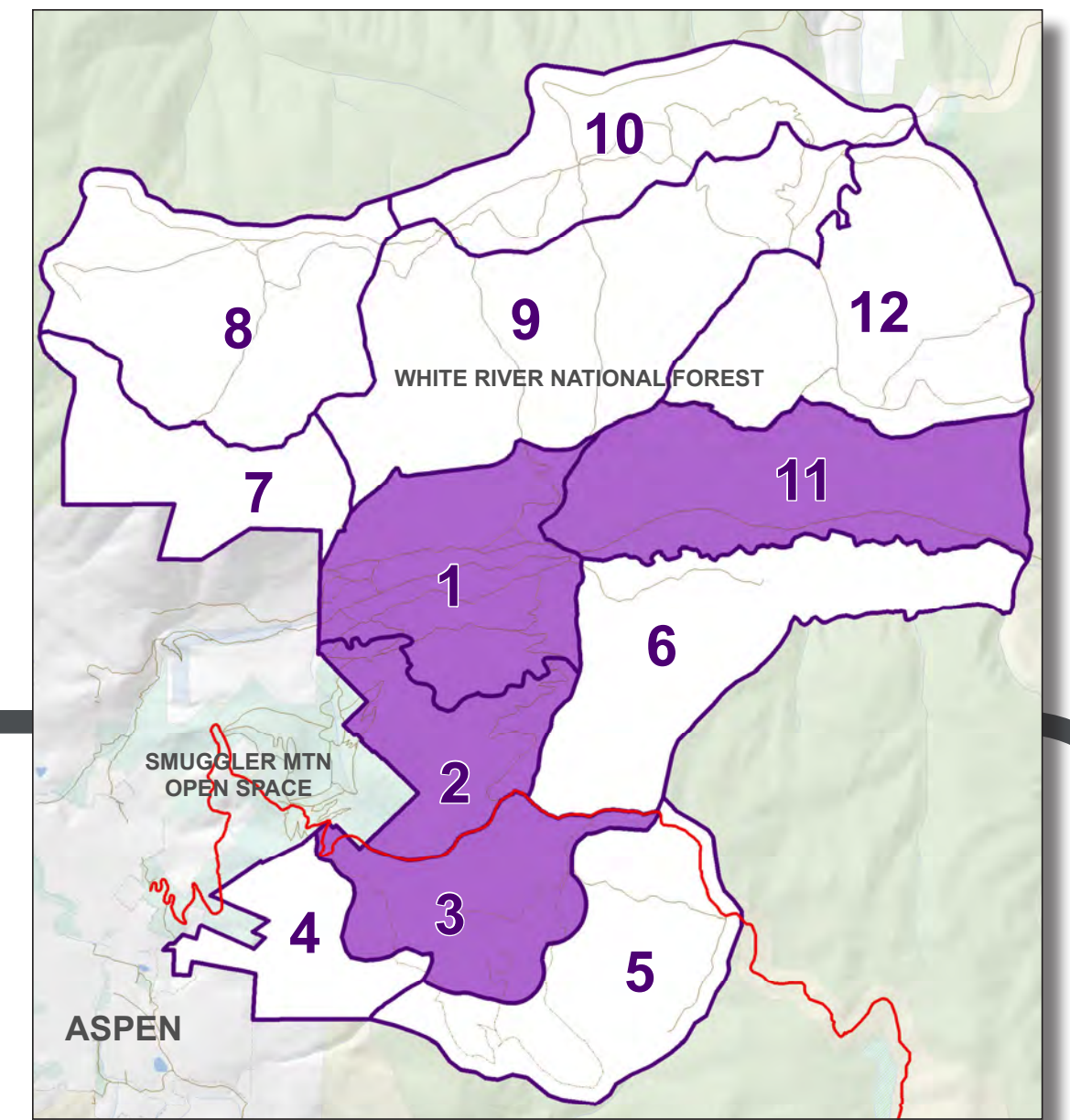
Key Opportunities

Environmental Education - Outdoor Classroom.

- The effects of climate change on forest conditions, i.e. drought and shifts in disturbance regimes can lend themselves to research projects and demonstration.
- This planning area is home to a wealth of resources, so it can also serve as a classroom for variety of topics.
- As this project is founded on collaboration, promoting the planning area as a demonstration site for environmental management will benefit from partnerships between resource managers, local schools, colleges and universities, and other organizations.

Heritage Trail to Promote Awareness of Historical Resources.

- Most heritage resources are probably historic sites associated with Aspen's mining boom, and fall into four categories: prospecting, mining (ore production), logging, and homesteading.
- Homesteads and sawmill sites are likely in Hunter Creek valley.
- Prospects and prospectors' camps can be found anywhere along the Smuggler Vein's general strike (northeast through Zones 1, 11, and 12)
- Logging outfits cut trees on both sides of Hunter Creek valley, and probably ran several sawmills on the valley floor.
- Most if not all historic sites are presently represented by archaeological features such as foundations, topographic modifications, and excavations.
- A Heritage Trail would build upon the existing recreational network to get people to see and appreciate these sites.



INFRASTRUCTURE

Smuggler Mountain Road

Smuggler Mountain Road is a highly valued recreation and social amenity in the Aspen community. The road’s location, recreation character and scenic values contribute to its popularity for locals and visitors alike. Smuggler Mountain Road currently provides a range of opportunities, including: hiking, mountain biking, sight-seeing, motorized use (dirt biking, jeeping, etc.) and access to the Benedict Huts.

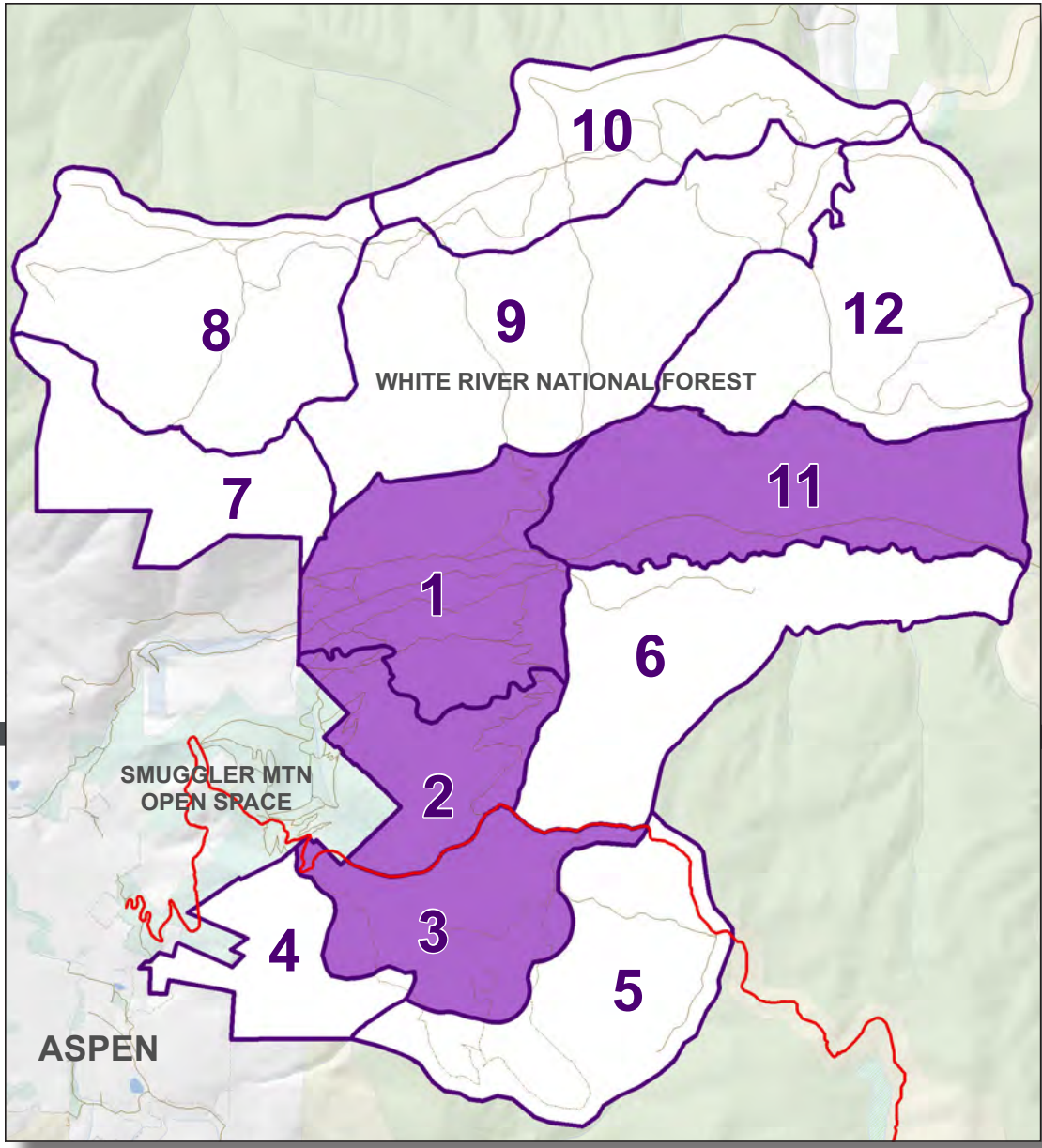
However, Smuggler Mountain Road also plays an important role in the management of the surrounding forest, and is a critical component of many of the opportunities presented in this Plan (e.g., timber removal for forest health and wildlife enhancement projects). While the current condition of the road is enjoyable for recreation, it presents a major constraint for vehicular use for management purposes in the form of surface erosion, large rocks/objects, and tight switch-backs.

The Hunter-Smuggler Plan Team needs to understand what the community values most about Smuggler Mountain Road so that the appropriate level of improvements and management are put into place. **Please place your sticker next to the scenario below that *best* matches your preference (*scenarios are broad and convey only general direction*).**

	Changes			Best option?
	Management	Use	Road	
Scenario 1 (Current)	• None	• None	• None	
Scenario 2 (Minor Road)	• None	• Potential increase in motorized travel	• Smoothing, Limited Graveling, Drainage Improvements	
Scenario 3 (Seasonally Closed)	• Seasonally Open to Motorized (Hunting)	• Restricts motorized use (except administrative) • Promotes hiking/ biking	Options: • Scenario 1 • Scenario 2 • Scenario 5	
Scenario 4 (Closed)	• Closed to Motorized	• Eliminates motorized (except administrative) • Promotes hiking/ biking	Options: • Scenario 1 • Scenario 2 • Scenario 5	
Scenario 5 (Major Road)	• None	• Potential increase in motorized • Diminished hiking/ biking use	• Major Grading, Graveling and Road Realignment	

ECONOMY DEVELOPMENT

Key Opportunities



Enhanced Recreation and Tourism.

Tourism and recreation are key drivers of the Aspen economy, and the planning area plays an important role in providing recreational amenities, particularly during the summer months. The Hunter Creek Valley and Smuggler Mountain have some of the area’s most popular hiking and mountain biking trails, which are easily accessible to those living or staying in Aspen. Maintaining and enhancing this system will be important for upholding the world-class recreation experience that Aspen has become known for.

Biochar and Other Timber Products.

New opportunities for economic development may also emerge as part of this process. The production of “biochar” is an ancient practice that is gaining visibility for carbon sequestration, energy production, and soil enhancement. By heating biomass such as timber with little or no oxygen, carbon is left behind. The energy that results from this thermal decomposition process may be redirected or used as heat. The resulting biochar can be added to soil to improve nutrient and water retention, and thus, store carbon that would otherwise be released into the atmosphere. As climate change policy evolves in our country, markets for carbon sequestration will potentially emerge, making biochar an increasingly viable economic product.

It is important to acknowledge that biochar or other timber products would be a beneficial by-product of potential forest management activities, but would not be the primary reason for conducting those activities.



Before and after biochar application at the Hope Mine, near Aspen.